

mm., both numbers fortunately are very convenient and suitable for their respective purposes.

2. For the case of kilometers per hour, it is plain that in the same manner as in (1) the equation of velocity becomes:

$$V \text{ in kilometers per hour} = \frac{3,600}{t h} m$$

and that here again, as before, $V=m$, when t is 30 seconds and h is 120 mm.

3. Finally, for the third case of meters per second the general equation of velocity becomes for a cloud 1,000 meters high:

$$V \text{ in meters per second} = \frac{m}{t h} 1,000$$

The best that can be done in this case, still retaining $h=120$ mm. is to make $t=25$ seconds, whereupon:

$$V = \frac{m}{3,000} 1,000; \text{ or } = V \frac{m}{3}$$

(6). We now come to the consideration of the measurement of cloud heights. This is really a matter of great difficulty, and the present discussion will be confined to explaining how measurements of this sort can be somewhat imperfectly made with the nephoscope. For this purpose two stations may be established within sight of each other and at a known distance apart. A mile or more is necessary for high clouds, but for nephoscopic observations upon clouds of moderate elevations a less distance between stations may be fairly satisfactory. The zero points of the graduated rims of the nephoscopes had best be set exactly on the line between the two stations, although this is not necessary if the azimuth of this line is taken into account.

The observations require that the observers at the two sta-

tions shall first decide upon some particular cloud, or spot on the cloud, to be measured. Telephonic communication is quite indispensable for this purpose. When a mutual identification of a spot has been reached each observer measures with his nephoscope the altitude and azimuth of the spot at the same moment of time. The mathematical computation by which the height of the cloud is deduced from such observations is rather complex and need not be given. The height of the cloud may be determined in a mechanical way, as follows: Lay off a line on the floor having a length corresponding to the distance between the stations. A scale of 1 inch to 100 feet will be convenient. Tack strings to the floor, one exactly at each end of the line. Stretch these strings up through the air so that the angular altitude above the floor corresponds to the altitudes obtained from the observations of the two nephoscopes, respectively. The threads must also make the same horizontal angles with the base line as found from the observation of the azimuth of the cloud. If the two observers sighted at the same point of the cloud and the strings were nicely adjusted, they should intersect at a point above the floor. This point represents the cloud and its vertical distance above the floor, measured on the same scale as the base line, for example, 1 inch equals 100 feet is the desired height of the cloud. Generally, the strings will fail to intersect, which means that the two observers were not looking at the same point. If the discrepancy is not too great, the height of the cloud may be measured from a point midway between the strings where they are nearest together.

The averages of several observations are necessary to get fairly good altitudes. Generally, however, it is necessary to employ theodolites in order that the angles may be measured with greater accuracy and photography is called in to obviate the difficulty of fixing upon a definite point of observation.

NOTES BY THE EDITOR.

THE NEW ENGLAND METEOROLOGICAL SOCIETY.

The Editor has received from Prof. Wm. M. Davis, Secretary of the New England Meteorological Society, a notice stating that the thirty-sixth regular meeting of the Society was held at Boston on April 25, 1896, at which, after reading a number of excellent papers by Rotch, Fergusson, Clayton, and Very, the question of the dissolution of the Society was considered. The Secretary reported that—

Thirty-nine members of the Society, not present at this meeting, had sent in written ballots, 32 being in favor of dissolution, and 7 in the negative; a number of members not voting. It was then moved:

1. That when this meeting adjourns, it adjourns *sine die*, and that the Society be thereby dissolved. This motion was carried by 8 affirmative against no negative votes.

The following recommendations of the Council were then voted:

2. That notice of the votes of this meeting be sent to all members of the Society.

3. That any unexpended balance remaining in the treasury of the Society, after the payment of its obligations, be spent under the direction of Messrs. W. H. Niles, W. M. Davis, and R. de C. Ward, for some meteorological purpose.

4. That notice of the dissolution of the Society be forwarded for publication in the U. S. MONTHLY WEATHER REVIEW, New England Climate and Crop Bulletin, American Journal of Science, Science, Nature, and the Meteorologische Zeitschrift.

5. That any undistributed copies of the Society's investigations be presented to the Astronomical Observatory of Harvard College, to be disposed of by gift, exchange, or otherwise, as shall seem most advisable to the Director of that Observatory.

6. That any publication hereafter received, addressed to the Society, shall be presented to the library of the same Observatory.

On motion, the Society adjourned *sine die*.

Almost simultaneously with the above notice comes the news that the American Meteorological Journal will be dis-

continued with the completion of Volume XII. We have here two events that mark an unfortunate epoch in the history of meteorology in America.

The support of the Journal and the Society has, perhaps, fallen too heavily upon a few persons to whom all must be grateful for their faithful work. The discontinuance of both leaves a gap that ought to be promptly filled. Meanwhile, the weekly journal, Science, has, to a limited extent, opened its columns to communications on meteorological subjects, and those meteorological observers who desire to extend their knowledge of what is going on in this branch of science will have to consult that periodical, as it is the only one in America that now gives prominence to this subject.

MEXICAN CLIMATOLOGICAL DATA.

In order to extend the isobars and isotherms southward so that the students of weather, climate and storms in the United States may properly appreciate the influence of the conditions that prevail over Mexico the Editor has compiled the following table from the Boletina Mensual for January, 1896, as published by the Central Meteorological Observatory of Mexico. The data there given in metric measure have, of course, been converted into English measures. The barometric means are as given by mercurial barometers under the influence of local gravity and therefore need reductions to standard gravity, depending upon both latitude and altitude; the influence of the latter is rather uncertain, but that of the former is well known. For the sake of conformity with the other data published in this REVIEW these corrections for local gravity have not been applied.